REMARKS

Application Amendments

Claims 1-16 are pending in the present application. No claim claim amendments have been made. No additional claims fee is believed to be due.

Provisional Double Patenting Rejection Over Co-Pending US Application No. 10/667,960

Claims 1-2, 4-11, and 13-16 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5-6, 10, 15, and 17 of co-pending US Application No. 10/764,191.

Upon receiving notice of allowance of US Application No. 10/764,191, Applicant is prepared to file a properly executed terminal disclaimer in compliance with 37 CFR 1.321(c). Therefore, it is believed that this provisional rejection can be overcome.

Rejections Under 35 USC 103(a) Over International Application WO 98/52519 to Pratt in view of US Patent No. 5,578,087 to Audousset et al.

Claims 1-16 are rejected under 35 USC 103(a) as being unpatentable over International Application WO 98/52519 to Pratt ("Pratt") in view of US Patent No. 5,578,087 to Audousset et al. ("Audousset"). The Examiner asserts that Pratt teaches a hair coloring composition comprising a developer of N,N-disubstituted p-phenylenediamine that is capable of undergoing only a single electrophilic attack reaction and couplers of N,N-dimethyl acetoacetamide and N,N-diethyl acetoacetamide that read on Applicants' claimed formula (I). The Examiner also asserts that Pratt discloses a method for coloring hair and a hair coloring kit. However, the Examiner acknowledges that Pratt does not disclose a composition comprising developers selected from amino aromatic systems capable of being oxidized and thereafter undergoing at least two electrophilic attack reactions, as Applicants' claims require. But, the Examiner further asserts that Audousett teaches a hair coloring composition comprising as developers para-phenylenediamine, which undergoes at least two eletrophilic attack reactions, and N,N-bis (β-hydroxyethyl) para-phenylenediamine (*i.e.*, a N,N-disubstituted p-phenylenediamine), which undergoes a single electrophilic attack reaction. Thus, the Examiner concludes that it would have been obvious to one of ordinary skill in the art to modify the composition of Pratt by substituting the developer N,N-bis (β-hydroxyethyl) para-phenylenediamine with the developer para-phenylenediamine because Audousset teaches the equivalence of using para-phenylenediamine (an unsubstituted amine compound) and N,N-bis (β-hydroxyethyl) para-phenylenediamine (a substituted amine compound) in a hair coloring composition. Applicants respectfully traverse the present rejection based on the following comments.

The combination of Pratt and Audousset does not establish a *prima facie* case of obviousness because there is no suggestion or motivation to modify the cited references to achieve Applicants' hair coloring composition. Modifying the composition of Pratt by substituting the developer N,N-bis (β-hydroxyethyl) para-phenylenediamine with the developer para-phenylenediamine as shown in Audousset would change the principle of operation of the invention of Pratt (see MPEP 2143.01). Applicants' claimed hair color composition requires (a) one or more developers selected from amino aromatic systems capable of being oxidized and thereafter undergoing *at least two electrophilic attack reactions*, and (b) one or more couplers selected from couplers of the claimed formula (I) and claimed formula (II). Applicants' claimed hair color compositions provide improved ultraviolet light (UV) fade resistance for the yellow color which results from the claimed couplers by using the claimed couplers in combination with developers which undergo at least two electrophilic attack reactions.

In contrast, Pratt is directed to hair coloring compositions comprising (a) developers selected from amino aromatic systems capable of being oxidized and thereafter undergoing *a single nucleophilic attack reaction*, and (b) certain described couplers. Pratt specifically teaches that "the structure of the developer is such that it reacts substantially only at one position, which is normally an amine. Suitable developers of this type include amino aromatic systems in which there is only one primary amine group, at which reaction occurs, other amine and other reactive groups being protected by blocking substituents." See page 5, lines 30-36 of Pratt. Pratt describes the advantage of selecting a developer which reacts substantially only at one position as being that the disclosed couplers couple with the developer at only one position so as to produce only one colored dimer, which results in extremely efficient formation of color molecules and improved accuracy in predicting the final overall color produced. These color molecules are described as having improved wash-fastness. Thus, the principle of operation of the composition of Pratt is based on the requirement of selecting a developer which is capable of undergoing only a single nucleophilic attack reaction. As a result, Pratt teaches away from using a developer which is capable of undergoing more than one nucleophilic attack reaction, such as unsubstituted para-phenylenediamine.

Audousset is directed to dyeing compositions containing para or ortho type oxidation dye precursors (*i.e.*, developers) and couplers consisting of at least one benzimidazole derivative and at least one meta-phenylenediamine. The compositions of Audousset are described as providing ashen or blue hues in hair which display tenacity with respect to exposure to UV irradiation and to repeated washes. These benefits are provided by using the described coupler derived from benzimidazole and meta-phenylenediamines. Audousset teaches that a variety of para or ortho type dye precursors (*i.e.*, developers) may be used in combination with the benizmidazole derivative coupler to achieve the described benefits. Audousset discloses both para-phenylenediamine (an unsubstituted amine compound which is capable of undergoing at least two eletrophilic attack reactions) and N,N-bis (β-hydroxyethyl) para-phenylenediamine (a substituted amine compound which is capable of undergoing a single electrophilic attack reaction) among suitable para type oxidation dye precursors. However, Audousset fails to disclose any benefit in selecting one of the suitable developers over another from among the extensive list disclosed. Instead, as the Examiner notes, Audousset describes that para-phenylenediamine and N,N-bis (β-hydroxyethyl) para-phenylenediamine are equally suitable for use in the compositions of Audousset. Notably, though, Audousset does not disclose the yellow couplers of Applicants' claimed formula (I) or claimed formula (II). Therefore, Audousset provides no teaching or suggestion that para-phenylenediamine and N,N-bis (β-hydroxyethyl) para-phenylenediamine are equally suitable developers for use in combination with the yellow couplers of Applicants' claimed formula (I) or claimed formula (II).

Although Audousset describes both para-phenylenediamine and N,N-bis (β-hydroxyethyl) para-phenylenediamine, there is no suggestion or motivation to substitute N,N-disubstituted p-phenylenediamine with para-phenylenediamine in the composition of Pratt to achieve Applicants' claimed composition. To do so goes directly against the principle of operation of the compositions of Pratt. It would not be obvious to one of ordinary skill in the hair coloring art to substitute a developer which undergoes a single electrophilic attack reaction with another developer which undergoes more than one electrophilic attack reaction in a hair coloring composition which requires a developer which undergoes a single electrophilic attack reaction to provide the intended benefits of efficient color formation, improved accuracy in predicting the final overall color produced, and wash-fastness, for particular classes of couplers. Therefore, the combination of Pratt and Audousset fails to establish a *prima facie* case of obviousness.

Additionally, Applicants have shown the criticality of using a developer which is capable of undergoing at least two nucelophilic attack reactions over a developer which is capable of undergoing only a single nucleophilic attack reaction, with respect to providing improved UV fade resistance for the yellow color which results from the claimed couplers. Specifically, in Example 1 and in Table 2, at pages 8-9 of the specification of the present application, Applicants demonstrate that a formulation comprising para-phenylenediamine ("PPD") in combination with the yellow coupler N,N-dimethylacetoacetamide gives a consumer noticeable UV fade benefit versus a formulation comprising dichloro-para-aminophenol (which is an example of an amino aromatic developer capable undergoing a single nucleophilic attack reaction) in combination with the same yellow coupler. Notably, Pratt describes 2,6-dichloro-p-aminophenol and 2,3-dichloro-p-aminophenol as examples of preferred developers for use in the compositions of Pratt. See page 25, lines 1-5 of Pratt.

Accordingly, Applicants' claims 1-16 are novel and non-obvious over the combination of Pratt and Audousset.

CONCLUSION

In light of the remarks presented herein, it is requested that the Examiner reconsider and withdraw the present rejections. Early and favorable action in the case is respectfully requested.

Applicant has made an earnest effort to place their application in proper form and to distinguish the invention as now claimed from the applied references. In view of the foregoing, Applicant respectfully requests reconsideration of this application and allowance of Claims 1-16.

Respectfully submitted,
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November 9, 2004
Customer No. 27752